March 25, 2014

FACT SHEET: U.S. - Kazakhstan Cooperative Activities in Nuclear Security

For many years, the United States and Kazakhstan have engaged in a broad set of cooperative activities to enhance and improve Kazakhstan's nuclear security capabilities. Recent and ongoing examples of such successful cooperation include:

Nuclear Security Training Center

The United States is working with Kazakhstan to develop a Nuclear Security Training Center (NSTC) in order to improve indigenous security and safeguards training capabilities for all nuclear facilities in Kazakhstan. U.S. Department of Energy National Nuclear Security Administration (DOE/NNSA) support includes constructing and equipping the NSTC as well as curriculum development for physical protection and material control and accounting specialists. The current projected completion date is before the end of 2015. The United States, led by the Department of State and in coordination with the Departments of Energy and Defense, is collaborating with Kazakhstan to develop a counter nuclear smuggling curriculum at the Center and other related nuclear security training.

Second Line of Defense

Since 2006, the DOE/NNSA Second Line of Defense (SLD) Program has been working cooperatively with the Kazakhstan Customs Control Committee (KCCC) to install

radiation detection equipment at ports, land border crossings, airports, and other international points of exit and entry. To date, SLD has completed the installation of radiation detection systems at twenty-nine sites. During 2014, SLD continues to work on the deployment of radiation detection systems at an additional three sites, as well as a National Communications Systems pilot project that will relay radiation detection system state of health and alarm data in near-real time from the crossing points to the Kazakhstani Customs headquarters in Astana. Also, SLD is working with the State Border Guard Service and internal law enforcement on mobile detection.

Reactor Conversion

The United States is working with the Institute of Nuclear Physics (INP) in Alatau and the Institute of Atomic Energy (IAE) in Kurchatov to convert the final three reactors in Kazakhstan from the use of highly enriched uranium (HEU) fuel to low enriched uranium (LEU) fuel. At the INP, DOE/NNSA is working to ensure that the reactor can be converted as quickly as possible. Activities also are underway with the Russian fuel fabricator (Luch) and the IAE to fabricate fuel samples to verify that the two remaining IAE reactors can be converted.

HEU Removals

The United States has been working with Kazakhstan to eliminate its excess HEU since the completion of Project Sapphire in 1994, when the two countries cooperated to remove and ship to the United States approximately 600 kilograms of HEU from Kazakhstan. In recent years, the

DOE/NNSA Global Threat Reduction Initiative (GTRI) has returned almost 75 kilograms of HEU spent fuel to Russia and has downblended all remaining fresh HEU (33 kilograms) in-country. Once the final three research reactors are converted to LEU, DOE/NNSA will work with Kazakhstan to return the remaining 85 kg of HEU at these facilities to the Russian Federation for disposition. The next shipment will take place in late 2014 from the Institute of Nuclear Physics in Alatau.

HEU and Plutonium Security and Disposition

The United States has worked with Kazakhstan to complete the transportation of 10 metric tons of HEU and 3 metric tons of plutonium – enough material to make 775 nuclear weapons – from the Kazakhstan BN-350 facility in Aktau to a secure facility in the northeastern part of the country. Currently, Kazakhstan is in the processing of performing a feasibility study to evaluate options for final disposition of this material.

Emergency Management

The United States, through DOE/NNSA, is working with emergency management authorities in Kazakhstan to enhance Kazakhstan authorities' capabilities to effectively respond to potential nuclear/radiological emergencies that may endanger workers, the public, and the environment. In 2013, DOE/NNSA conducted an equipment demonstration and a training course for first responders from multiple government agencies in Kazakhstan.

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